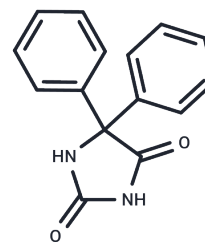


Phenytoin

Chemical Properties

CAS No. :	57-41-0
Formula:	C ₁₅ H ₁₂ N ₂ O ₂
Molecular Weight:	252.27
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	Phenytoin (5,5-Diphenylhydantoin) is a hydantoin derivative and a non-sedative antiepileptic agent with anticonvulsant activity. It potentially acts by promoting sodium efflux from neurons in the motor cortex, reducing post-tetanic potentiation at synapses. This prevents cortical seizure foci from spreading to adjacent areas and stabilizes the threshold against hyperexcitability. Additionally, it appears to reduce muscle spindle sensitivity to stretch, causing muscle relaxation.
Targets(IC50)	Sodium Channel, Virus Protease

Solubility Information

Solubility	Ethanol: 11 mg/mL (43.6 mM), Sonication is recommended. DMSO: 250 mg/mL (991 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 10 mg/mL (39.64 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (39.64 mM), Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.964 mL	19.820 mL	39.6401 mL
5 mM	0.7928 mL	3.964 mL	7.928 mL
10 mM	0.3964 mL	1.982 mL	3.964 mL
50 mM	0.0793 mL	0.3964 mL	0.7928 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Owoeye O, et al. J Diet Suppl. 2015 Mar;12(1):105-17.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481